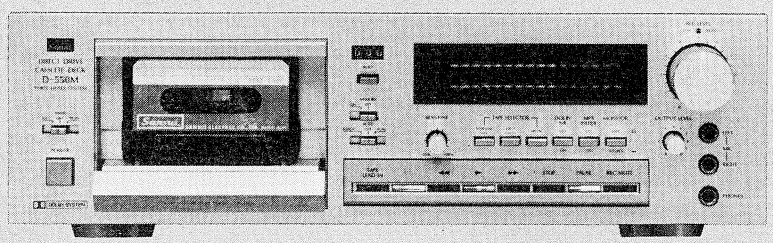
SERVICE MANUAL

DIRECT DRIVE CASSETTE DECK

SANSUI D-550M

(Silver & Black Model)



Sansui

SANSUI ELECTRIC CO., LTD.

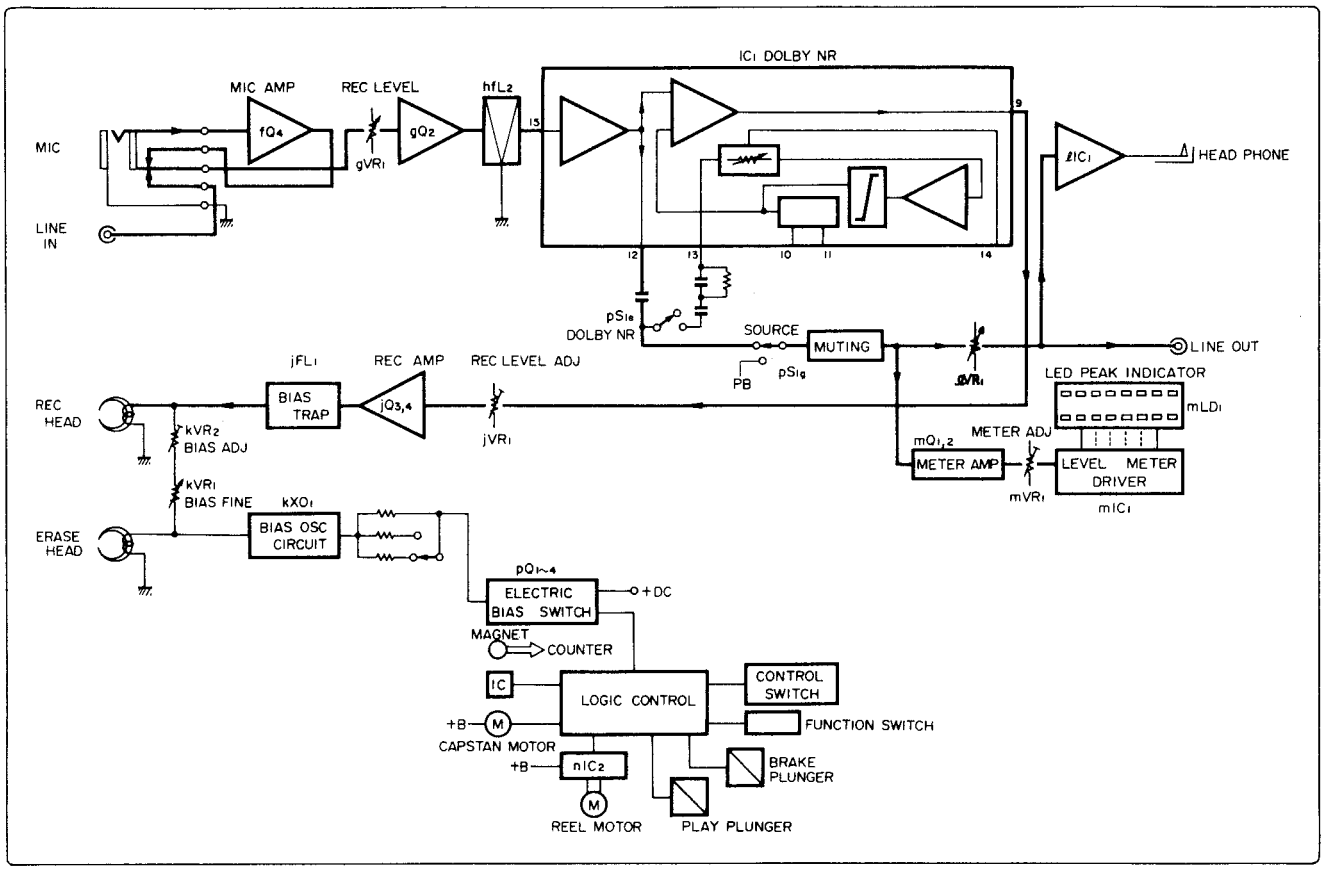
• SPECIFICATIONS

Track	4-Track (2-Channel Stereo)
Tape speed	4.8 cm/sec. (1-7/8 ips)
Heads	Record/Playback: FH Head Erase: Double Gap Ferrite Head
Motor	Capstan: FG Servo DC Motor Reels: DC Motor
Wow and flutter	within 0.035 % WRMS
Fast wind time	approximately 75 seconds (C-60)
Frequency response (Record/Playback)	
Normal Tape (LH) (−20 VU)	20 to 17,000 Hz (25 to 16,000 Hz ±3 dB)
Metal Tape (−20 VU)	20 to 22,000 Hz (25 to 21,000 Hz ±3 dB)
(0 VU)	25 to 13,000 Hz ±3 dB
Signal to noise ratio (Record/Playback)	
Metal Tape (without Dolby Noise Reduction Effect)	better than 60 dB (weighted)
(With Dolby Noise Reduction)	better than 70 dB (above 5 kHz)
Erasure factor (Metal Tape)	more than 65 dB at 1,000 Hz
Input sensitivity and impedance (0 VU, 1,000 Hz)	
MIC	0.4 mV/200Ω ~ 5 kΩ
LINE IN (REC)	70 mV/47 kΩ
Output level (0 VU, 1,000 Hz)	
LINE OUT (PLAY)	400 mV
PHONES	95 mV
Power requirements	
Power voltage	120, 220, 240 V (50/60 Hz)
For U.S.A. and Canada	120 V (60 Hz)
Power consumption	26 W
Dimensions	430 mm (16-15/16") W 128 mm (5-1/16") H 282 mm (11-1/8") D
Using rack mounting adaptors	480 mm (18-5/16") W 128 mm (5-1/16") H 302 mm (11-15/16") D
Weight	
Silver panel type	5.9 kg (13.0 lbs.) net
Black panel type	6.0 kg (13.3 lbs.) net

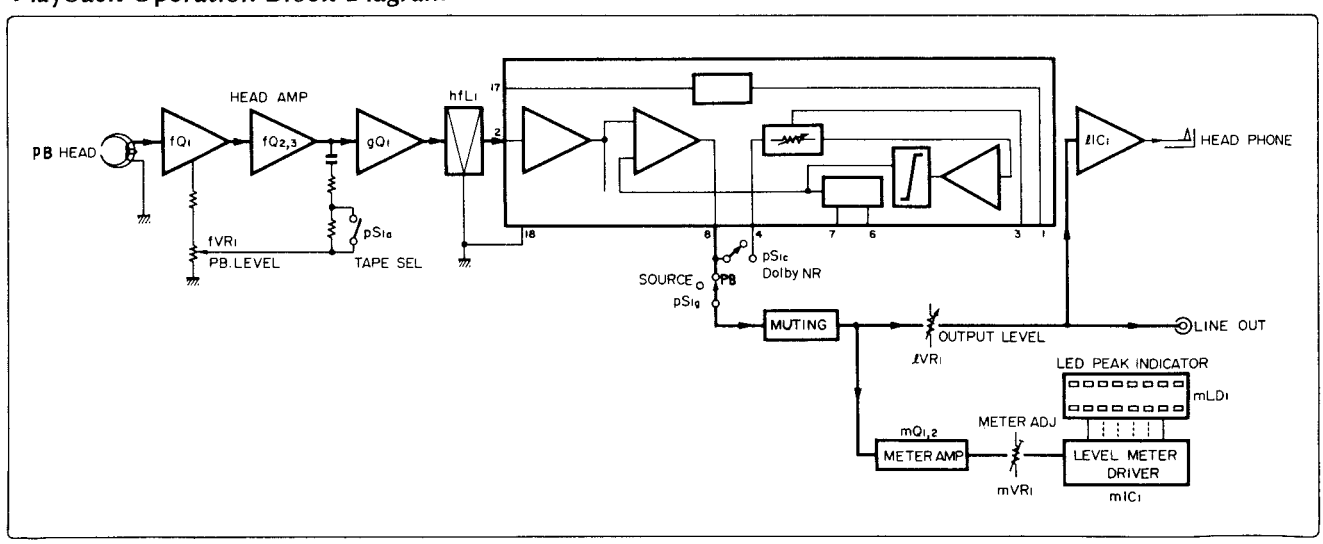
* Design and specifications subject to changes without notice for improvements.

1. BLOCK DIAGRAM

1-1. Recording Operation Block Diagram



1-2. Playback Operation Block Diagram



2. OPERATION OF BACK TENTION SERVO (Refer to Fig. 2-1.)

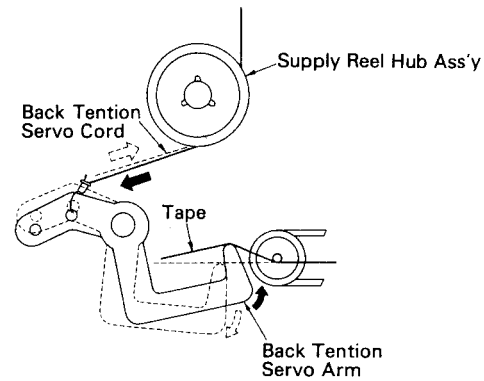
This cassette deck has three separate heads and two separate amplifiers for simultaneous monitoring of recording. Therefore, the tape transport mechanism is the most precise part in the deck. However, head-to-tape contact mostly depends upon tension of a pad in a cassette half during tape running. To avoid improper pad tension, Model D-550M features "Back Tension Servo Mechanism" that detects and controls tape tension automatically.

First, when most tape is on the supply reel, the back tension servo arm presses the tape due to weak tape tension, and resultly the supply reel hub ass'y is braked by the back tension cord.

Second, when most tape is on the take-up reel, the back tension servo arm is pressed downward by the tape due to strong tape tension, and resultly the brake to the supply reel hub ass'y is weakened by the back tension cord.

As above expressed, the tape tension is always regulated by mechanical servo even when the tape tension is changed slightly.

Fig. 2-1



Since the mechanism operations and electrical operations employed in D-550M is similar to that of D-350M, the explanation of these operations are omitted from this manual, therefore please refer to the page 2, 3 on service manual of D-350M.

3. ADJUSTMENTS

3-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-S3K (3 kHz signals are recorded on the tape).
2. Connections are shown in Fig. 3-1.

Fig. 3-1

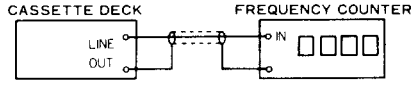
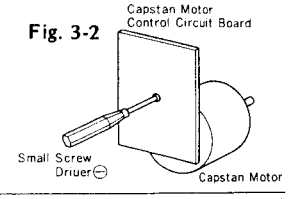


Fig. 3-2



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	TAPE SPEED Adj.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K.	Turn semi-variable resistor as Fig. 3-2.	3000 Hz ±45 Hz	Use small screw driver.

3-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. Output Volume . . . . . MAX.
3. For this adjustment, use Sansui Test Tape, SCT-F10KN, SCT-L400N and SCT-F1K.
4. Set the Dolby NR switch to be OFF.
5. MONITOR SWITCH . . . . . TAPE
6. Connections are shown in Fig. 3-3.

Fig. 3-3

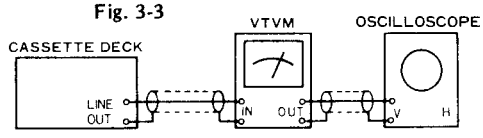
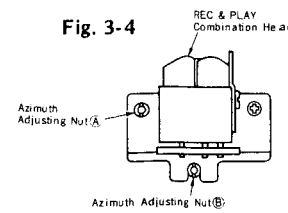


Fig. 3-4



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM, Scope	Playback the TEST TAPE SCT-F10KN	Adjust the azimuth adjusting Nut Ⓐ in Fig. 3-4.	MAX. Output on both channels.	After this adjustment, lock the Nut with paint. * Not turn the azimuth adjusting Nut Ⓑ except that replaced Rec & Play Back Head. * Refer to main parts replacement D on page 8 when replaced REC & PLAY head.
2.	Playback Level Adj.	Same as above	Set TAPE SELECTOR to NORMAL (LH) position. Playback the TEST TAPE SCT-L400N.	Adjust each fVR1 on L-CH and R-CH.	540mV ±2dB	See Top View on page 11.

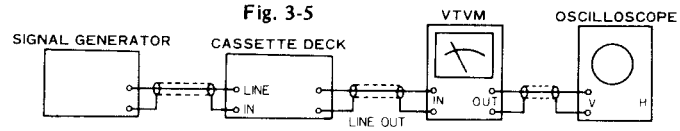
STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
3.	High Frequency Equalization Check	Same as above	Set TAPE SELECTOR to NORMAL (LH) position Playback the TEST TAPE SCT-F1K.	———	———	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10KN.	———	———	Confirm that the output levels are within ±3dB comparing with the above readings.

Note: On STEP 3, set the TAPE SELECTOR to HIGH (CrO_2) position during playback of SCT-10KN, and confirm the indication on VTVM drops approximately 3dB ~ 4dB.

3-3. Peak Level Indicator Adjustment

Note: 1. Set the TAPE SELECTOE to be NORMAL (LH) position.
2. Output Volume . . . . . MAX.
3. Set the Dolby NR Switch to be OFF.
4. MONITOR SWITCH . . . . . SOURCE
5. Connections are shown in Fig. 3-5.

Fig. 3-5

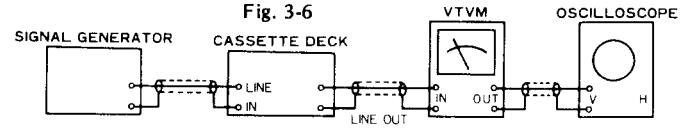


STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	Peak Level Indicator Adjustment	Feed 1kHz, 140mV from S.G. into LINE IN	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA 1. Adjust the REC Level Volume for obtaining 510mV on VTVM.	1. Light the 0dB point on level indicator to adjust mVR1 (L-ch) and mVR1 (R-ch). 2. Adjust the REC LEVEL Volume for obtaining 500mV on VTVM, then confirm the 0dB point on level indicator go out. 3. If not, adjust mVR1 (L-ch) and mVR1 (R-ch), until SETTING 1 ~ ADJUSTMENT 2 will be obtain.	mVR1 (L-ch) and mVR1 (R-ch) are shown in Top View on page 11.

3-4. Recording Adjustment

Note: 1. For this adjustment, use Sansui Test Tape.
2. Output Volume . . . . . MAX.
3. Connections are shown in Fig. 3-6.
4. Bias Fine Volume . . . . . Center
5. MONITOR SWITCH . . . . . SOURCE
6. Set the Dolby NR switch to be OFF.

Fig. 3-6



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 100mV from S.G into LINE IN.	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Depress PLAY and REC button. 2. Adjust the Rec Level Volume for obtaining 380mV on VTVM. 3. Push off the MONITOR switch to be TAPE, then record and Play back the 1kHz signal. 4. Confirm that the output levels on both channels are 380mV ±2dB on VTVM.	1. If not, turn jVR1 (REC, L-CH) and jVR1 (REC, R-CH) until output level 380mV ±2dB on both channel are obtained. 2. Repeat this REC Level adj. until the indication on VTVM will be 380mV ±2dB.	jVR1 (REC, L-CH), and jVR1 (REC, R-CH) are shown in Top View on page 11.
2.	Frequency Response Adj.	Feed 1kHz 7mV (−20dB) and 10kHz (−20dB) from S.G. into LINE IN.	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Record and Play back the 1kHz and 12kHz signals from S.G., then confirm that both output levels equal.	1. If not, adjust kVR2L for L-CH and kVR2R for R-CH slightly until the output levels will be equal.	kVR2 (L-ch) and kVR2 (R-ch) are shown in Top View on page 11.

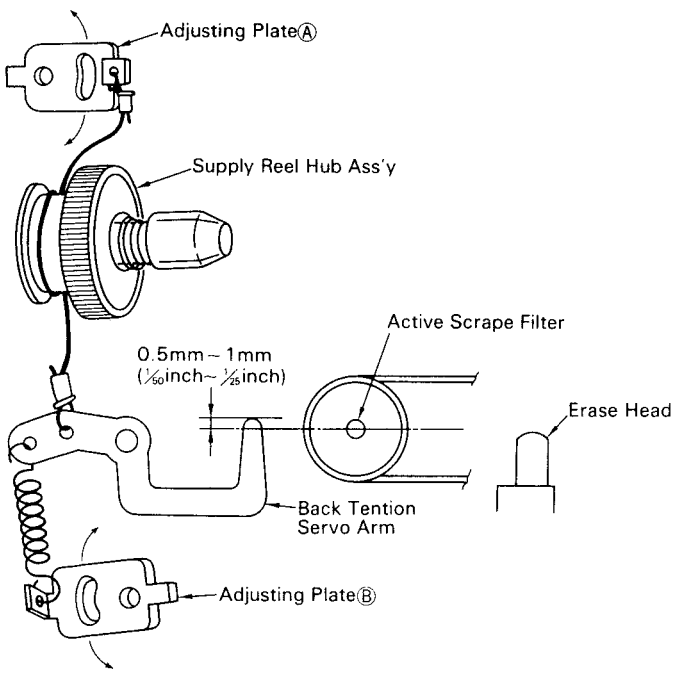
STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
3.	Play back side bias trap Adj.	———	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to METAL position. 1. Push off the MONITOR switch to be TAPE. 2. Set the Rec Level Volume to be minimum.	Adjust each hFL1 on L-CH and R-CH, until the Bias signal will be minimum on Scope and VTVM.	hFL1 (PB, L-ch) and hFL1 (PB; R-ch) are shown in Top View on page 11.

3-5. Back Tension Servo Adjustment (See Fig. 3-7)

Note: 1. Use Torque meter for Back Tension.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR
1.	Back Tension Servo Adj.	———	1. Remove Bonnet, Front panel and mechanism cover. 2. Put a paper between the points of half switch(as_2) 3. Depress PLAY Button.	Adjust the adjusting plate Ⓐ.	It is to adjust the tip of Back Tension Servo arm so as to 0.5mm to 1mm upward from the center of active scrape filter.
		Torque meter	1. Take off a paper at the points of half switch (as_2). 2. Load the torque meter. 3. Depress PLAY Button.	Adjust the adjusting plate Ⓑ in Fig. 3-7 until the Back Tension on torque meter will be 3g-cm to 4g-cm.	

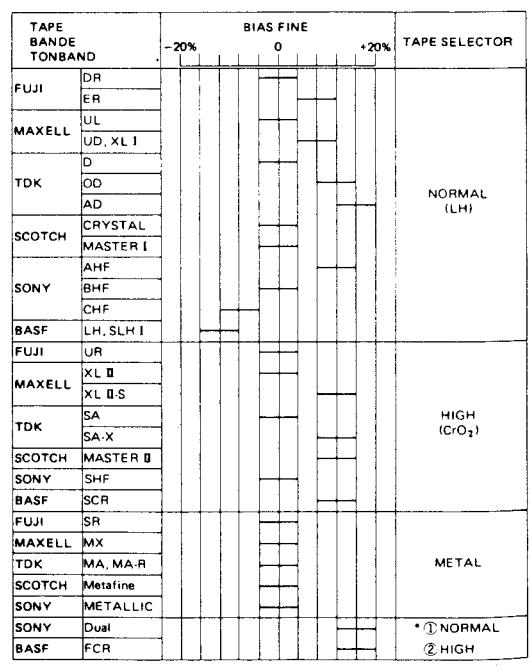
Fig. 3-7



♦ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description
SCT-F40	40 Hz	Playback Frequency Response Check
SCT-F1K	1 kHz	High Frequency Equalization Check
SCT-F10k	10 kHz	REC/PB Head Adjustment
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check
SCT-LH NORMAL (LH)		Recording Bias Adjustment
SCT-SA HIGH (CrO_2)		REC/PB Level Adjustment
SCT-CS Fe-Cr		Frequency Response Check

♦ Tape Selector Position



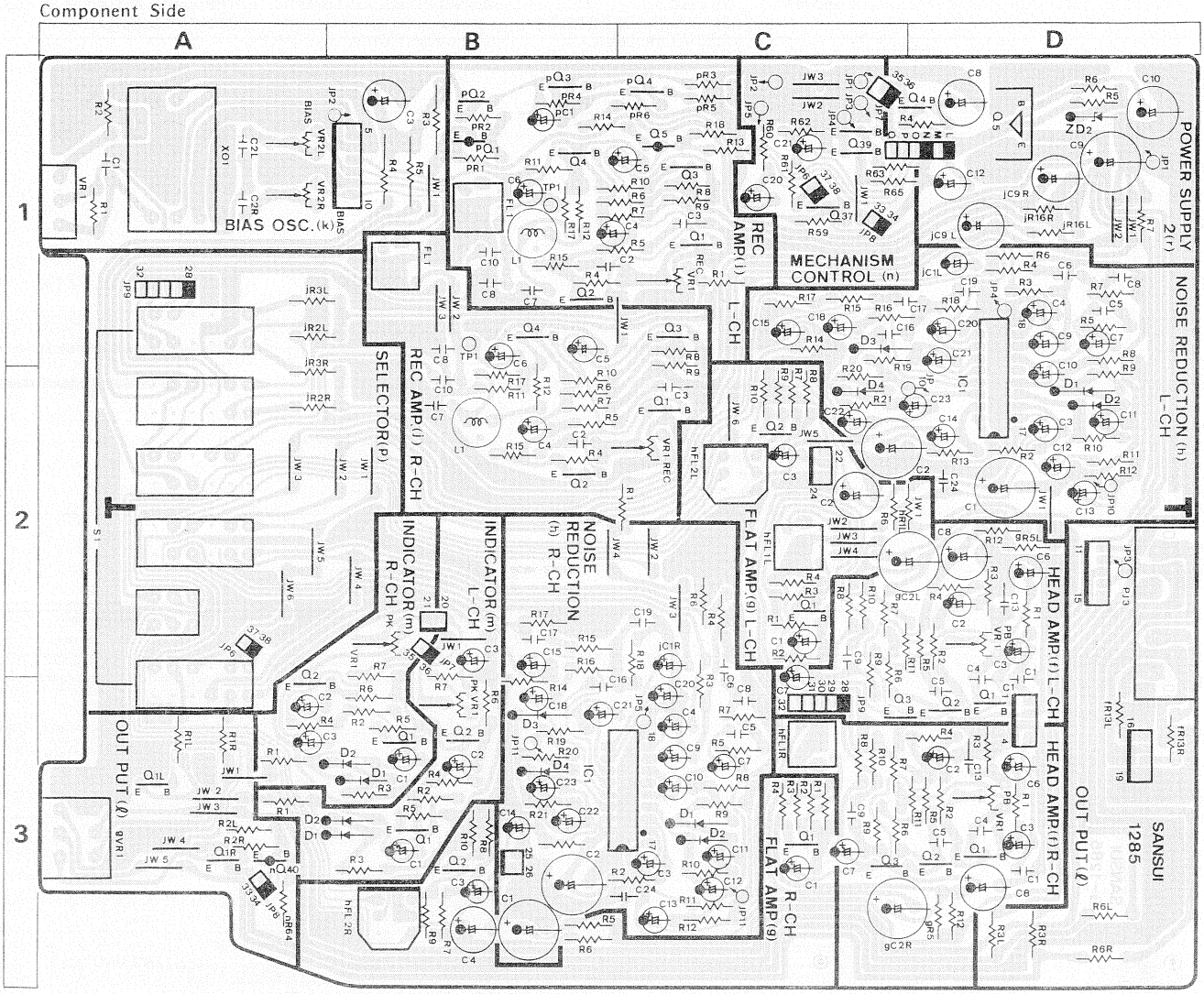
*①REC/ENR/AUFNAHME ②PLAY/REPRO/WIEDERGABE

4. PARTS LOCATION & PARTS LIST

4-1. G-1285 Play & Rec Amp. Circuit Board (Stock No. 07098501)

*Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

Component Side



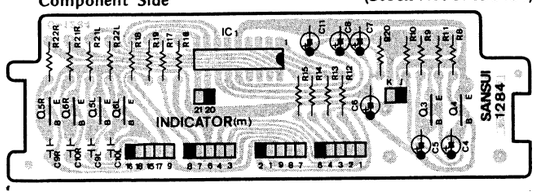
Parts List

Parts No.	Stock No.	Description
*Transistor		
fQ1	07225401	2SC2320L
	or 03060701	2SC1313
fQ2	07225401	2SC2320L
	or 03060701	2SC1313
fQ3	07225401	2SC2320L
	or 03060701	2SC1313
gQ1	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
gQ2	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
jQ1	03068301	2SC2320
	or 07194801	2SC1815
jQ2	03068301	2SC2320
	or 07194801	2SC1815
jQ3	03068301	2SC2320
	or 07194801	2SC1815
jQ4	03068301	2SC2320
	or 07194801	2SC1815
jQ5	03012701	2SA999
lQ1	03068301	2SC2320
mQ1	03068301	2SC2320
mQ2	03068301	2SC2320
nQ37	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ38	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ39	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ40	03012701	2SA999
pQ1	07206801	2SA952
pQ2	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
pQ3	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
pQ4	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
rQ4	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
rQ5	03083901	2SD313AL
*IC		
hIC1	07224700	HA11226
*Diode		
hD1	07225500	1N60
hD2	03117600	1S2473D
	or 46092700	US1035
hD3	07225500	1N60
hD4	03117600	1S2473D
	or 46092700	US1035
mD1	03117600	1S2473D
	or 46092700	US1035
mD2	03117600	1S2473D
	or 46092700	US1035

4-4. G-1284 Peak Meter Circuit Board

(Stock No. 07098401)

Component Side



Parts List

Parts No.	Stock No.	Description
●Transistor		
mQ3	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
mQ4	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
mQ5	03012701	2SA999
mQ6	03012701	2SA999
●IC		
mIC1	07224000	MSL9350RS, meter driver

4-5. G-1291 Function Switch Circuit Board

(Stock No. 07098301)

Parts List

Parts No.	Stock No.	Description
nLD1	07250800	Light Emitting Diode (ORG)
nLD2	07250900	Light Emitting Diode (GRN)
nLD3	07250900	Light Emitting Diode (GRN)
nLD4	07250900	Light Emitting Diode (GRN)
nLD5	07251000	Light Emitting Diode (YEL)
nS1	07234700	Push Switch
nS2	07234700	Push Switch
nS3	07234700	Push Switch
nS4	07234700	Push Switch
nS5	07234700	Push Switch
nS6	07234700	Push Switch
nS7	07234700	Push Switch
nS8	07234700	Push Switch

● Note: The circuit board, G-1294, G-1295 & G-1303 are not supplied as the assembled. However, the individual parts on the circuit board are provided by orders.

4-6. G-1294 Memory/Auto Switch Circuit Board

Parts List

Parts No.	Stock No.	Description
nS9	07249900	Slide Switch, auto
nS10	07249800	Slide Switch, memory

4-7. G-1295 Timer Switch Circuit Board

Parts List

Parts No.	Stock No.	Description
nS11	07249900	Slide Switch

4-8. G-1303 Power Switch Circuit Board

Parts List

Parts No.	Stock No.	Description
	07267100	Push Switch

● Abbreviations

C.R.	Carbon Resistor	E.L.	Low Leak Electrolytic Capacitor
S.R.	Solid Resistor	E.B.	Bi-Polar Electrolytic Capacitor
Ce.R.	Cement Resistor	E.BL.	Low Leak Bi-Polar Electrolytic Capacitor
M.R.	Metal Film Resistor	Ta.C.	Tantalum Capacitor
F.R.	Fusing Resistor	F.C.	Film Capacitor
N.I.R.	Non-Inflammable Resistor	M.P.	Metalized Paper Capacitor
C.C.	Ceramic Capacitor	P.C.	Polystyrene Capacitor
C.T.	Ceramic Capacitor, Temperature Compensation	G.C.	Gimmic Capacitor
E.C.	Electrolytic Capacitor		

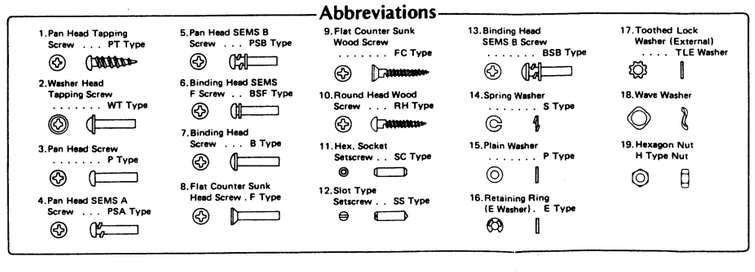
5. EXPLODED VIEW AND PARTS LIST

Parts List

Parts No.	Stock No.	Description
1	07736200	Reel Motor
2	07719900	Plunger Solenoid, Brake
3	09446600	Spring Support
4	07735200	Idler Ass'y
5	07733500	Pulley Ass'y
6	07734000	Cushion
7	07720100	Capstan Motor Ass'y
8	07719700	Leaf Switch, cassette sensor
9	07734100	Mechanism Support Cushion
10	07733400	Tape-Run Sensing Circuit Board
10-1	*03614000	Hall IC D6838
	*09447100	Hall IC DN838
11	07734200	Counter Belt (B)
12	07733800	Pulley, counter
13	07733900	Counter Belt (A)
14	09402600	Counter
15	07735300	Pinch Roller Ass'y
16	09446500	Cassette Holder, right
17	65400300	Steel Ball
18	07661100	Adjusting Plate (B), back tension
19	07733100	Take-up Reel Hub Ass'y
20	07735600	Supply Reel Hub Ass'y
21	07735700	Back Tension Servo Ass'y
22	07720000	Lamp 8V 50mA
23	07736000	REC/PB Combination Head
24	07736100	Earth Head
25	07660900	Plate, earth head
26	07660800	Guide Plate
27	07734800	Steel Ball
28	09446400	Cassette Holder, left
29	07711900	Capstan Belt
30	07711700	Pulley Ass'y, capstan
31	07711800	Bearing, capstan pulley
32	07734000	Brake Shoe
33	09446800	Rec Senser Lever
34	07719600	Leaf Switch, rec sensor
35	07719800	Plunger Solenoid, play, rec
36	07733000	Diode
●Screw		
37	08321300	Pan Head M2.6 x 4
38	08321400	Pan Head M2.6 x 6
39	00436800	Pan Head M2.6 x 8
40	07736400	Pan Head M2.6 x 3
41	07736600	Slot-type M2 x 3.5
42	09446300	Pan Head M2 x 5
43	00440400	Pan Head Tapping M2.6 x 4
44	07732900	Pan Head M4 x 11.2
45	00436700	Flat Countersunk Head M2.6 x 6
46	08321500	Pan Head M2 x 4
47	07736300	Pan Head M2 x 3
48	00448000	Pan Head M3 x 8
49	00449100	Pan Head M3 x 6
50	07736700	Pan Head M2 x 13
51	09447300	Adjustment Nut, head
●Washer		
52	07732700	Plain, idler spring, M7 x 2.1 x 0.5
53	07733700	Plain, mechanism support
54	00488900	E-type washer D-1.5
55	00489000	E-type washer D-2
56	07732800	Poly-thrust, M5.4 x 2.1 x 0.5
57	07732600	Poly-thrust, Reel Hub
●Spring		
58	07734300	for Brake Plunger
59	07734600	for Idler
60	07734500	for Brake
61	07734700	for Pinch Roller
62	09447000	for Head Adjust

* When Replacing Hole IC, refer to Service Bulletin, Ref. AN-123.

Abbreviations

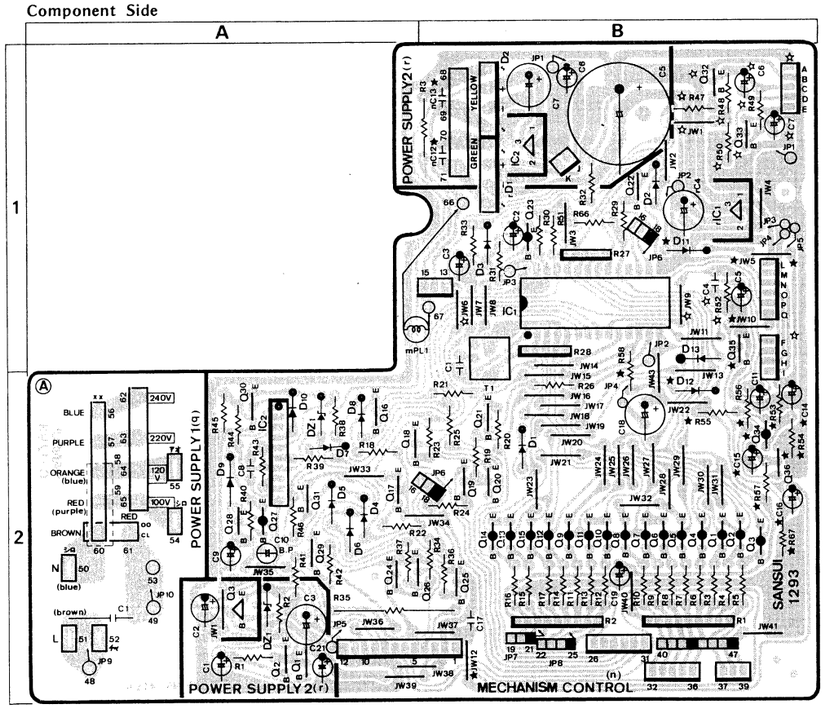

1. Pan Head Tapping Screw . . . PT Type
2. Washer Head Tapping Screw . . . . . WT Type
3. Pan Head Screw . . . . . P Type
4. Pan Head SEMS A Screw . . . PSA Type
5. Pan Head SEMS B Screw . . . PSB Type
6. Binding Head SEMS F Screw . . BSF Type
7. Binding Head Screw . . . B Type
8. Flat Counter Sunk Head Screw . F Type
9. Flat Counter Sunk Wood Screw . . . . . FC Type
10. Round Head Wood Screw . . . RH Type
11. Hex. Socket Setscrew . . SC Type
12. Slot Type Setscrew . . SS Type
13. Binding Head SEMS B Screw . . . . . BSB Type
14. Spring Washer . . . . . S Type
15. Plain Washer . . . . . P Type
16. Retaining Ring (E Washer) . E Type
17. Toothed Lock Washer (External) . . . . TLE Washer
18. Wave Washer
19. Hexagon Nut H Type Nut

Parts No.	Stock No.	Description
●Zener Diode		
rDZ2	03179200	RD15E-B
fC3	00325200	10μF 35V E.C.
fC5	46072600	8pF 125V S.C.
fC9	00406600	0.015μF 100V F.C.
mC12	00304300	10μF 16V E.B.
fVR1	07240800	Semi Variable Resistor 200Ω (B), PB LEVEL Adj.
hFL1	07196800	Low Pass Filter, PB bias trap
hFL2	07196900	Filter VSL-252GS, Rec
jC7	00407200	0.027μF 100V F.C.
jFL1	07196800	Low Pass Filter, trap

Parts No.	Stock No.	Description
jVR1	07241300	Semi Variable Resistor 10kΩ B, Rec Level Adj.
kXO1	07250000	OSC Block BO-1
kVR1	07246500	Variable Resistor 100kΩ B, Bias Fine
kVR2	07241400	Semi Variable Resistor 20kΩ B, Bias Adj.
lVR1	07250600	Variable Resistor 10kΩ, output level
mVR1	07241800	Semi Variable Resistor 500kΩ B, meter Adj.
pS1	07250700	Push Switch, tape sel, dolby, MPX Fil, monitor
pJ3	07249100	4P Input/Output Terminal Board

4-2. G-1293 Mechanism Control Circuit Board (Stock No. 07097801)

Component Side



Parts List

Parts No.	Stock No.	Description
●Transistor		
nQ1	03012701	2SA999
nQ2	03012701	2SA999
nQ3	03012701	2SA999
nQ4	03012701	2SA999
nQ5	03012701	2SA999
nQ6	03012701	2SA999
nQ7	03012701	2SA999
nQ8	03012701	2SA999
nQ9	03012701	2SA999
nQ10	03012701	2SA999
nQ11	03012701	2SA999
nQ12	03012701	2SA999

Parts No.	Stock No.	Description
nQ13	03012701	2SA999
nQ14	03012701	2SA999
nQ15	03012701	2SA999
nQ16	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ17	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ18	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945

Parts No.	Stock No.	Description
nQ19	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ20	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ21	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ22	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945

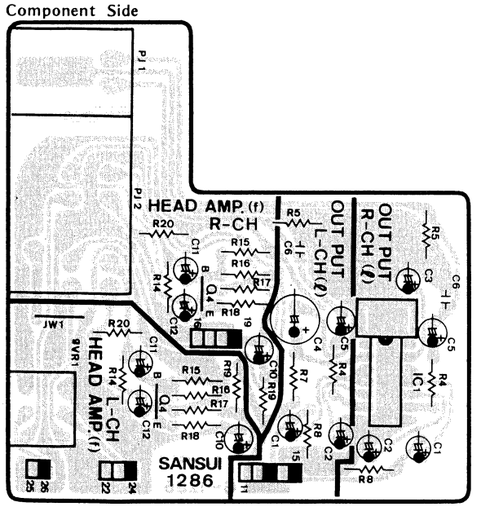
Parts No.	Stock No.	Description
nQ23	03012701	2SA999
nQ24	07206901	2SC2001
	or 03069101	2SC2060
	or 07254901	2SC1741
nQ25	07206901	2SC2001
	or 03069101	2SC2060
nQ26	07206901	2SC2001
	or 03069101	2SC2060
	or 07254901	2SC1741
	or 03068301	2SC2320
nQ27	07206801	2SA952
	or 07254801	2SA854
nQ28	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ29	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ30	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ31	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ34	03012701	2SA999
nQ35	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
nQ36	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
rQ1	07206901	2SC2001
	or 03069101	2SC2060
	or 03085201	2SD438
rQ2	03068301	2SC2320
	or 07194801	2SC1815
	or 46057201	LC945
	or 03086101	2SD357

Parts No.	Stock No.	Description
●Diode		
nD1	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD2	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD3	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD4	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	IS1035
nD5	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD6	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD7	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD8	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD9	03117700	10E-2
nD10	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD11	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
nD12	03111600	1S2473D
	or 03111800	1S1588
	or 46052500	US1035
rD1	03117000	RB-152
rD2	03117000	RB-152

Parts No.	Stock No.	Description
●Zener Diode		
nDZ1	03186000	RD5.6E-B
rDZ1	03163100	RD13E-B
●IC		
nIC1	07232500	μPD554C-031
nIC2	07233100	BA6109
rIC1	07232400	μPC78M10H
rIC2	03609200	FS7805M
	or 07183500	μPC78M05H
●Block Resistor		
nR1	46046300	8-22kΩ
nR2	46046300	8-22kΩ
nR27	46038900	4-22kΩ
nR28	46038900	4-22kΩ
nR35	00155100	33Ω 3W N.I.R.
nC10	00304300	10μF 16V E.B.
nC12	00406400	0.012μF 100V F.C.
nC13	00406400	0.012μF 100V F.C.
nT1	42306100	Clock Pulse Osc Coil
qC1	08302200	0.01μF 125V C.C.
mPL1	07234400	Lamp 8V 150mA
rR3	00137700	10Ω 1W N.I.R.
rC5	08300100	4700μF 25V E.C.
	or 07265000	4700μF 35V E.C.

4-3. G-1283 Headphone Amp. & Mic Amp. Circuit Board (Stock No. 07098601)

Component Side

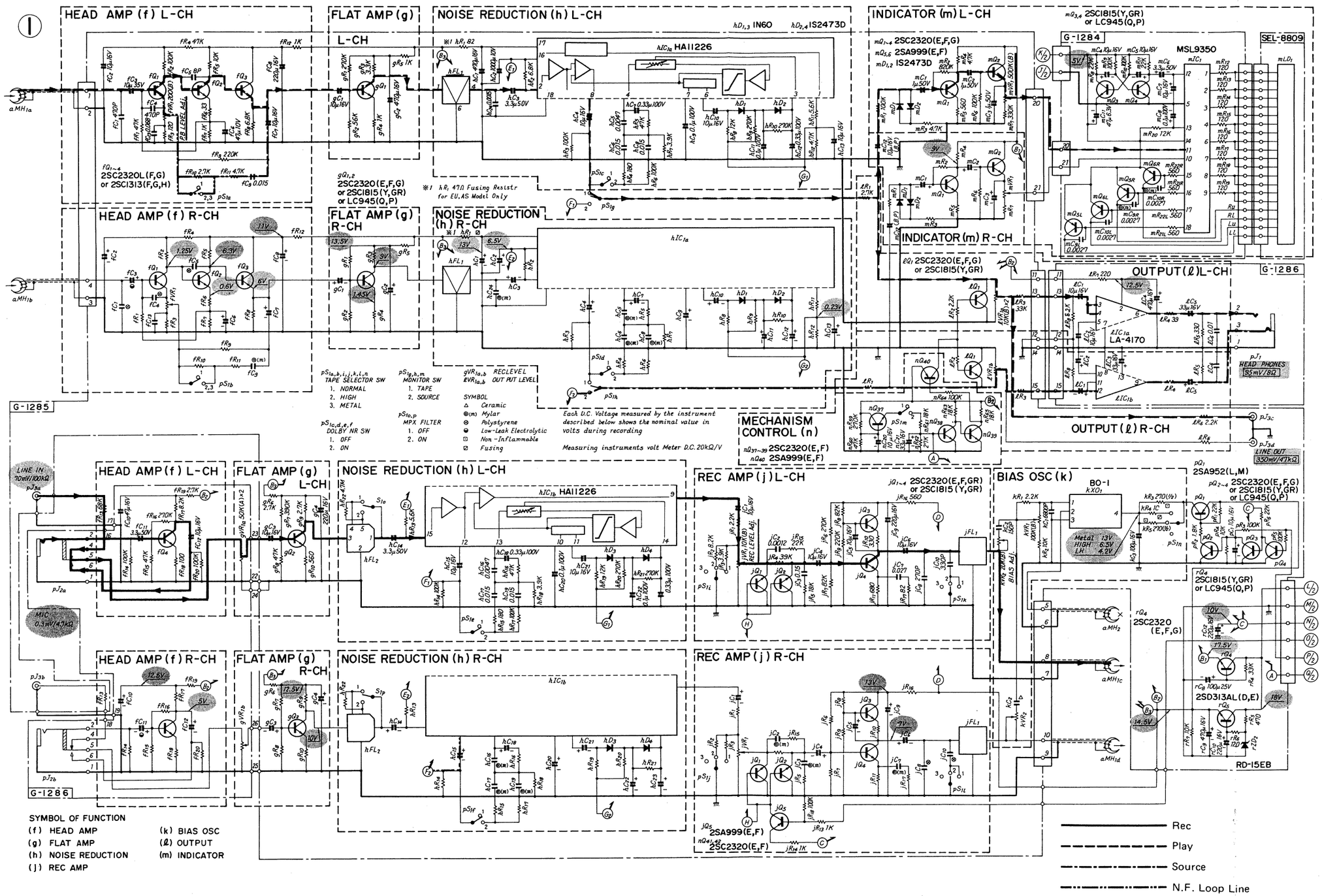


Parts List

Parts No.	Stock No.	Description
●Transistor		
fQ4	07225401	2SC2320L
	or 03060701	2SC1313
gVR1	07235400, 1	Variable Resistor 50kΩ A x 2, REC LEVEL
●IC		
lIC1	07224500	LA4170
pJ1	07194300	Head Phone Jack
pJ2	07200300	Mic Jack

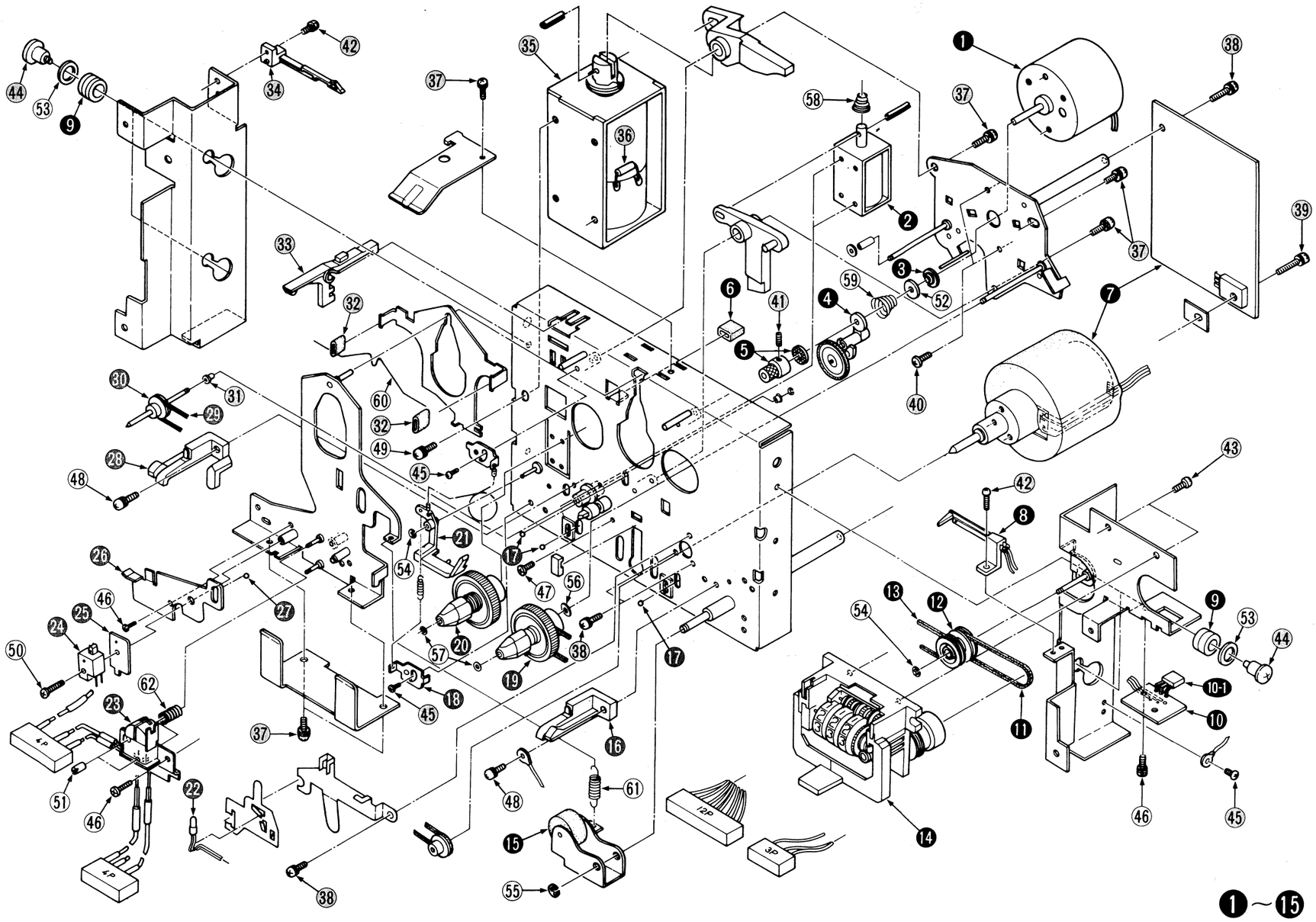
* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

7. SCHEMATIC DIAGRAM 7-1. Amplifier Section



2SC2001 2SA854 2SA952 2SA999 2SC1741 2SC1815 2SC2060 2SC2320 2SC2320L 2SD438
2SC1313 LC945
2SD357 2SD313AL
μPC78M5H μPC78M10H FS7805M
10E-2 1N60 1S1588 1S2473D VS1035
RB-152 RD-5.6EB RD-13EB RD-15EB
LA4170
MSL9350RS
μPD554C-031
HA11226
BA6109

<EXPLODED VIEW>



❶ ~ ⑮
⑯ ~ ㉚
㉛ ~ ㊺
㊻ ~ ㊷

6. MAIN PARTS REPLACEMENT
(See Exploded View left)

A. Mechanism Chassis

1) Remove bonnet and front panel ass'y.
2) Loosen two screws on mechanism cover ass'y to remove it.
3) Take out G-1303 (Power switch circuit board) and G-1295 (timer switch circuit board).
4) Plug out 4 connectors Ⓚ on G-1293 (Mechanism Control Circuit Board) and G-1285 (PB/Rec Amp Circuit Board) and cut off the vinyl bands. (See Top View on page 11.)
5) Loosen 4 screws fixing mechanism chassis and, the mechanism chassis is easily off.

B. Idler Ass'y ❹ and Reel Motor ❶

1) Take out mechanism chassis, and counter Ⓐ belt.
2) Remove thrust washer ㊼ at reel hub ass'y (take up · supply) ⑲, ⑳, and reel hub ass'y from mechanism chassis.
5) Loosen two screws ㊳, ㊴ fixing capstan motor control circuit board.
6) Loosen three screws ㊲ fixing reel motor mounting plate and take out reel motor.
7) Loosen one screw ㊶ around pulley to pull out the pulley, then remove idler ass'y from reel motor.
8) Next, to remove reel motor, take out idler spring ㊾, washer ㊷ and spring support ❸.
9) Loosen two screws ㊵ fixing reel motor and reel motor can be off from reel motor mounting plate.

C. Capstan Motor

1) Take out mechanism chassis first.
2) To remove this motor, loosen two screws ㊳, ㊴ fixing capstan motor control circuit board, and three screws ㊳ fixing capstan motor.

D. REC & PLAY Combination Head ㉘

1) Remove bonnet, front panel ass'y and mechanism cover.
2) Loosen an azimuth adjusting nut Ⓑ, then confirm the quantity of turn. (See Fig. 3-4 on page 2)
3) Loosen one screw ㊻ fixing REC & PLAY head and azimuth adjusting nut Ⓐ.
4) Take off cord from REC & PLAY head.
5) To attach REC & PLAY head, perform Step 4) inversely at first, bind an azimuth adjusting nut Ⓑ as quantity as loosen at step 2).

E. Back Tension Servo Ass'y ㉑

1) Remove bonnet, front panel ass'y and mechanism cover.
2) Take out E-type washer ㊹.
3) Take off the spring hooked to adjusting plate Ⓑ ⑱.
4) Take out two poly-thrust washer ㊼ fixing supply reel hub ass'y ⑳.
5) Loosen one screw ㊺ fixing adjusting plate Ⓐ with back tension cord. (See Fig. 3-7 on page 4)
6) Take out back tension servo ass'y ㉑.

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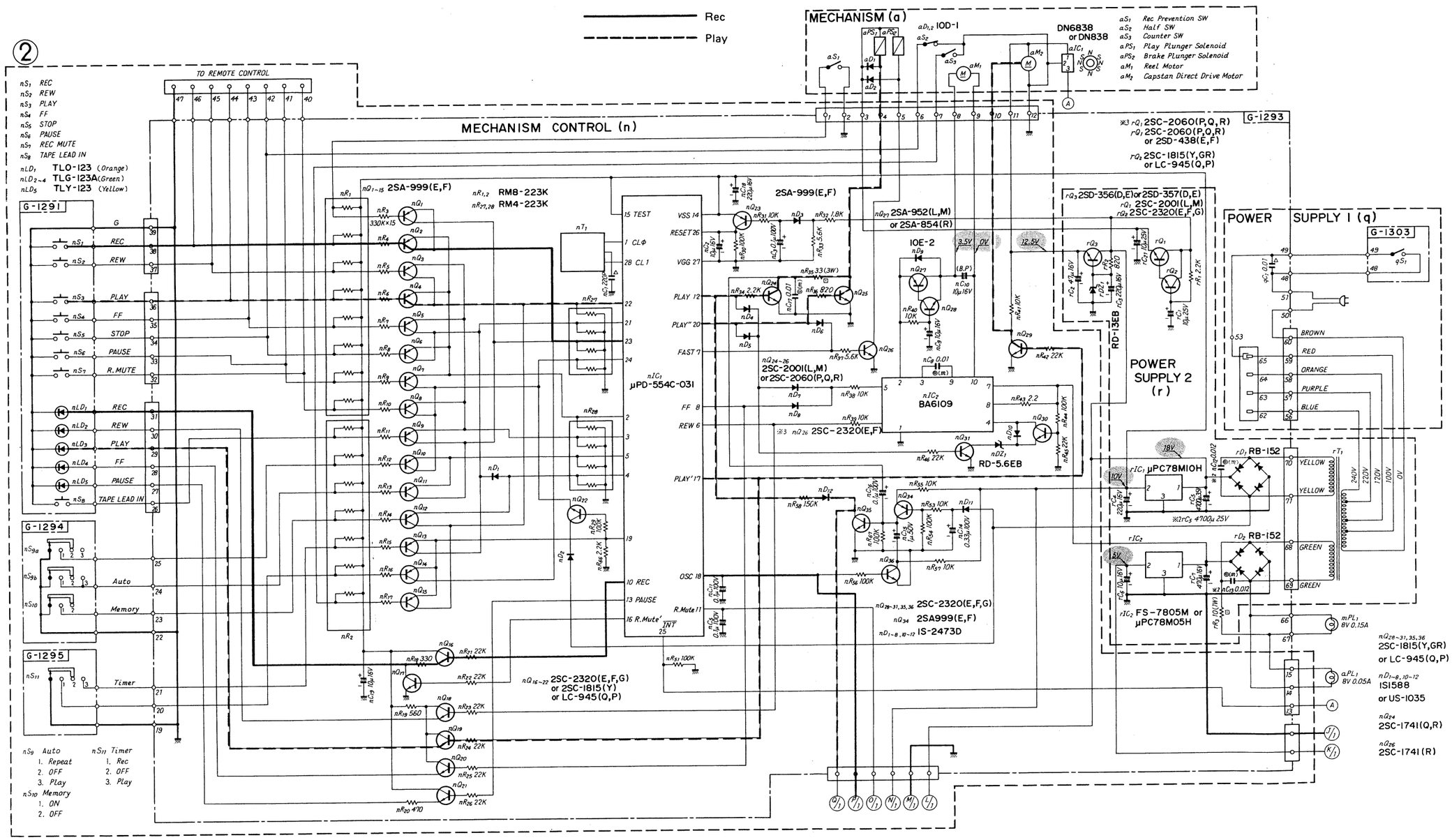
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

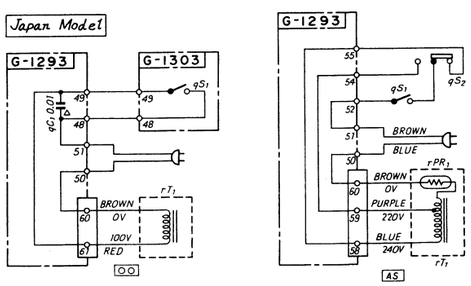
7-2. Control Section



SYMBOL
△ Ceramic
◉(m) Mylar
(B.P) Bi-Polar Electrolytic
▭ Non-Inflammable Resistor
⌀ Fusing Resistor
※2 Japan Model Only
※3 CSA Model Only

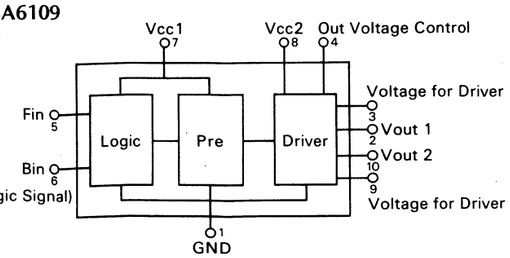
Each D.C. Voltage measured by the instruments described below shows the nominal value in volts during recording

Measuring instruments volt Meter D.C. 20kΩ/V



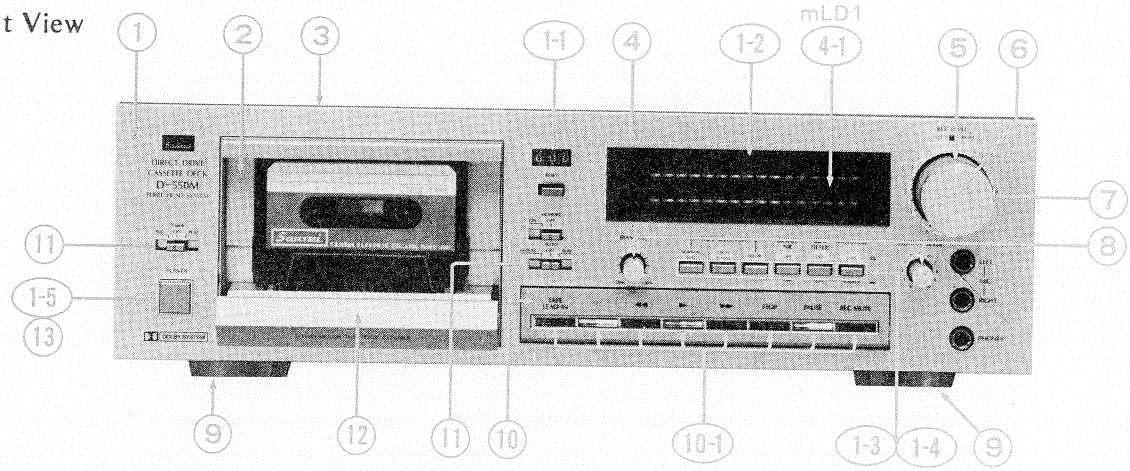
SYMBOL OF FUNCTION
(a) MECHANISM
(n) MECHANISM CONTROL
(q) POWER SUPPLY 1
(r) POWER SUPPLY 2

● BA6109

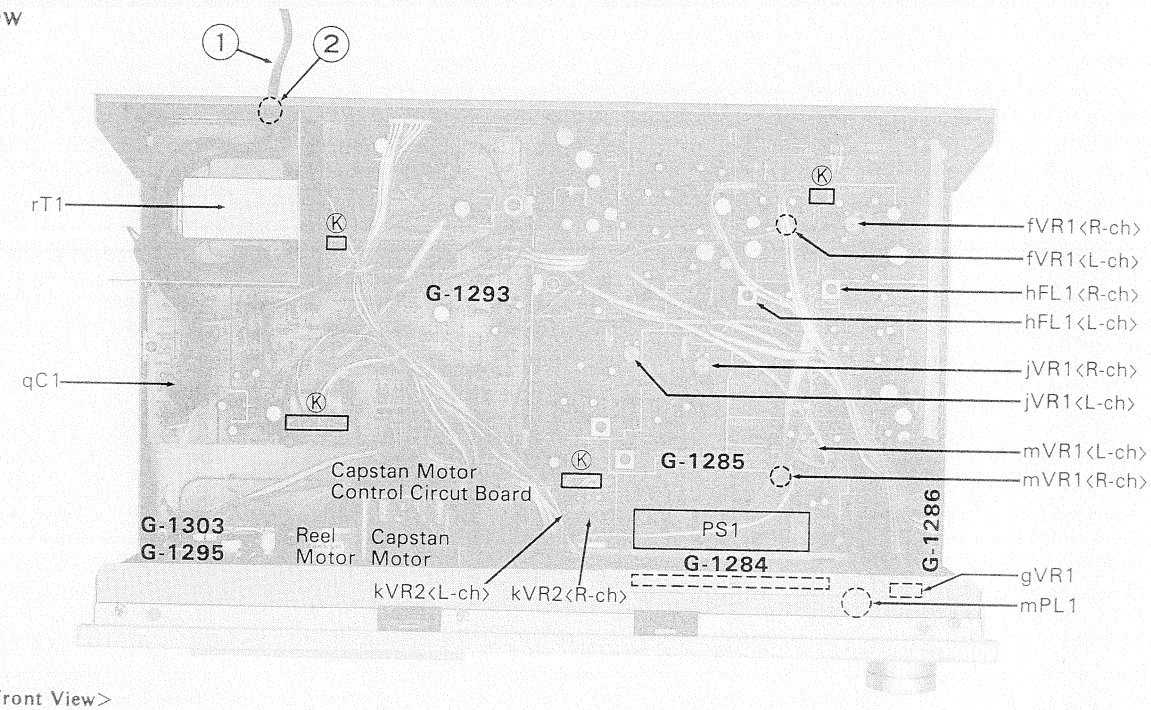


8. OTHER PARTS

8-1. Front View



8-2. Top View



Parts List <Front View>

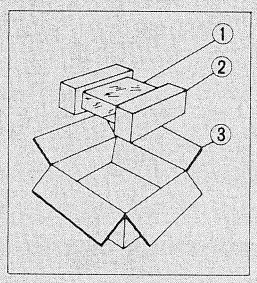
Parts No.	Stock No.	Description
1-1	07603800	Counter Lens
1-2	07604300	Peak Level Indicator Cover
1-4	07610700	Guide Cushion
4	07632000	Peak Level Indicator Frame Ass'y
4-1	07604400	Peak Level Indicator Scale Plate
mLD1	03194100	LED Ass'y SEL8809, peak level indicator
7	07506900	Masking Sheet, rec level VR
9	55073500	Leg
10-1	07623800	Knob, control
<Silver Model>		
1	07654900	Front Panel Ass'y
1-3	07630800	Push Knob Ass'y, tape sel, dolby, MPX Fil
1-5	59560800	Knob Guide, power
2	07631420	Mechanism Cover Ass'y
3	07610900	Bonnet
5	07603600	Knob, rec level right
6	07603400	Knob, rec level left
8	07603300	Knob, bias fine, output level
10	07636000	Control Panel Ass'y
11	07604100	Slide Knob, timer, auto, memory
12	07604500	Head Cover
13	53195000	Knob, power
<Black Model>		
1	07655100	Front Panel Ass'y
1-3	07630900	Push Knob Ass'y, tape sel, dolby, MPX Fil.
1-5	59560900	Knob Guide, power
2	07631510	Mechanism Cover Ass'y
3	07611000	Bonnet
5	07603700	Knob, rec level right
6	07603500	Knob, rec level left
8	07604000	Knob, bias fine, output level
10	07636100	Control Panel Ass'y
11	07604200	Slide Knob, timer, auto, memory
12	07604600	Head Cover
13	53196500	Knob, power

Parts List <Top View>

Parts No.	Stock No.	Description
1	38005700	Power Supply Cord
2	39106000	Strain Relief
mPL1	07234400	Lamp 8V 150mA
rT1	15003701	Power Transformer
gVR1	07235400, 1	Variable Resistor, REC LEVEL
pS1	07250700	Push Switch,

9. PACKING LIST

Parts No.	Stock No.	Description
1	91167610	Vinyl Bag
2	07632300	Styrofoam Packing
3	07655400	Carton Case (Silver)
	07655600	Carton Case (Black)



10. ACCESSORY LIST

Stock No.	Description
38103300	Pin Plug Cord
07642100	Operating Instruction
07712200	Rack Mounting Adaptor (Black)

Sansui

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